09/824,905

Term	Documents
KIT$1	0
KIT.DWPI,EPAB,JPAB,USPT.	77142
KITA.DWPI,EPAB,JPAB,USPT.	13724
KITB.DWPI,EPAB,JPAB,USPT.	2
KITC.DWPI,EPAB,JPAB,USPT.	237
KITE.DWPI,EPAB,JPAB,USPT.	2440
KITG.DWPI,EPAB,JPAB,USPT.	13
KITH.DWPI,EPAB,JPAB,USPT.	32
KITI.DWPI,EPAB,JPAB,USPT.	8
KITK.DWPI,EPAB,JPAB,USPT.	2
(L3 AND KIT$1).USPT,JPAB,EPAB,DWPI.	2

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DB Name	Query	Hit Count	Set Name
USPT,JPAB,EPAB,DWPI	l3 and kit$1	2	L4
USPT,JPAB,EPAB,DWPI	l2 and phosphodiester	2	L3
USPT,JPAB,EPAB,DWPI	l1 and electrophore$	3	L2
USPT,JPAB,EPAB,DWPI	(oligonucleotide$1 or oligonucleotide probe$1) near5 cleav$ near5 label$ near5 (immobiliz$2 or attach$2 or capture$1)	4	L1

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Search Results - Record(s) 1 through 2 of 2 returned.

☐ 1. Document ID: US 6251600 B1

L4: Entry 1 of 2 File: USPT Jun 26, 2001

US-PAT-NO: 6251600
DOCUMENT-IDENTIFIER: US 6251600 B1

TITLE: Homogeneous nucleotide amplification and assay

DATE-ISSUED: June 26, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Winger; Edward E.	Alameda	CA	94501	
Hargrove; David E.	Livermore	CA	94550	

US-CL-CURRENT: 435/6; 435/91.1, 435/91.2, 536/23.1, 536/24.3, 536/25.32

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWMC | Draw. Desc | Image

☐ 2. Document ID: US 5853990 A

L4: Entry 2 of 2 File: USPT Dec 29, 1998

US-PAT-NO: 5853990
DOCUMENT-IDENTIFIER: US 5853990 A

TITLE: Real time homogeneous nucleotide assay

DATE-ISSUED: December 29, 1998

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Winger; Edward E.	Alameda	CA	94501	
Kessler; Donald J.	Redwood Shores	CA		
Hargrove; David E.	Livermore	CA		

US-CL-CURRENT: 435/6; 435/91.2, 536/24.3, 536/25.32

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWMC | Draw. Desc | Image

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L4: Entry 1 of 2 File: USPT Jun 26, 2001

DOCUMENT-IDENTIFIER: US 6251600 B1
TITLE: Homogeneous nucleotide amplification and assay

BSPR:
The difficulties posed in providing accurate detection of alleles or mutants that differ in sequence from related strains by as little as a single base exemplify the deficiencies of the prior art. Methods that use selective digestions with restriction enzymes followed by electrophoretic separation require substantial post-amplification handling. Homogeneous fluorogenic probes such as those described by Livak, supra, have only limited capacity to detect rare sequences despite being optimized for such discrimination. Similarly, probe amplification strategies such as taught in U.S. Pat. No. 5,660,988 to Duck et al. also are limited. These latter prior art methods suffer from drawbacks in at least two areas.

DEPR:
Oligonucleotides are composed of reacted mononucleotides to make oligonucleotides in a manner such that the 5' phosphate of one mononucleotide pentose ring is attached to the 3' oxygen of its neighbor in one direction via a phosphodiester linkage, and is referred to as the "5' end" end of an oligonucleotide if its 5' phosphate is not linked to the 3' oxygen of a mononucleotide pentose ring and subsequently referred to as the "3' end" if its 3' oxygen is not linked to a 5' phosphate of a subsequent mononucleotide pentose ring. A nucleic acid sequence, even if internalized to a larger oligonucleotide, also may be said to have 5' and 3' ends. Two distinct, non-overlapping oligonucleotides annealed to two different regions of the same linear complementary nucleic acid sequence, so the 3' end of one oligonucleotide points toward the 5' end of the other, will be termed the "upstream" or "forward" oligonucleotide and the latter the "downstream" or "reverse" oligonucleotide. In general, "downstream" refers to a position located in the 3' direction on a single stranded oligonucleotide, or in a double stranded oligonucleotide, refers to a position located in the 3' direction of the reference nucleotide strand.

DEPR:
In labeled probe embodiments of the present invention, a label is attached to the probe so that the cleaved monoribonucleotides or small ribo-oligonucleotides which are generated by the nuclease activity of the RNase H can be detected. Several strategies may be employed to distinguish the uncleaved labeled ribo- or chimeric oligonucleotide probes from the cleaved labeled probe fragments. This feature of the present invention allows identification of those nucleic acid containing samples or specimens which contain sequences complementary to the ribo- or chimeric oligonucleotide probe. The probe may be labeled by incorporating moieties detectable by spectroscopic, photochemical, biochemical, immunocherical, enzymatic or chemical means. The method of linking or conjugating the label to the probe depends, of course, on the type of label(s) used and the position of the label on the probe, but in general comprises any suitable means of attachment known in the art. Further, the label may be considered attached to a particular nucleotide even though the attachment may comprise one or more intervening nucleotides.

DEPR:
The oligonucleotide primers and labeled probes may be prepared by a number of methods. Methods for preparing oligonucleotides (deoxy-, ribo-, and chimeric) of

a specific sequence are known in the art, and include, for example, cloning and restriction of appropriate sequences, direct automated chemical syntheses and enzymatically. Such techniques include, for example, the phosphotriester method, that phosphodiester method, the diethylphosphoramidate method, and the solid support method.

DEPR:
The composition of the probes can be designed to inhibit nuclease activity. The incorporation of modified phosphodiester linkages (e.g., methyl phosphorylthioate or methylphosphonates) in the labeled probe during chemical synthesis may be used to prevent cleavage at a selected site. Depending on the length of the probe, the composition of its 5' complementary region, and the position of the label, one can design a probe to preferentially favor the generation of short or long labeled probe fragments for use in the practice of the invention. Great flexibility in the modification of the probes of this invention is possible so long as a probe/target sequence duplex offers an enzymatically cleavable region. For example, RNase H may cleave where 3 or more contiguous base pairs of an RNA:DNA sequence are RNA. Egli, M., N. Usman, S. Zhang, and A. Rich (1993) Crystal structure of an Okazaki fragment at 2-.ANG. resolution. Proc. Natl. Acad. Sci. 89: 534-538.

DEPR:
The use of dye-binding signal generation in conjunction with the enabled primer embodiments may permit ratioing of the signals and comparing the signals or their ratios to standards which are varied in the number of tandemly repeated sequences. The technique may be used with or without melting point "scanning". Alternatively, especially in embodiments without labeling, the amplification products can be sized by gel electrophoresis. The optimized amplifications using the probes of this invention should produce the most specific product.

DEPR:
Further, since the probe functions as a primer, short amplicons using short primers can be selected within the constraints of prior art primers which tend to generate non-specific amplification products when the lower temperatures required for the annealing of short primers are used. Prior art methods used to distinguish non-specific amplification products from amplification of target nucleic acid sequences requires the selection of longer amplicons which permit their discrimination by differences in their melting points or by electrophoretic migration. The use of short amplicons has several advantages. First, a broader range of short conserved regions is likely to be found in highly variable targets such as HIV. Second, short amplicons are less likely to have secondary structures which impede amplification.

DEPR:
The oligonucleotide primers and labeled probes may be prepared by a number of methods. Methods for preparing oligonucleotides (deoxy-, ribo-, and chimeric) of a specific sequence are known in the art, and include, for example, cloning and restriction of appropriate sequences, direct automated chemical syntheses and enzymatically. Such techniques include, for example, the phosphotriester method, the phosphodiester method, the diethylphosphoramidate method, and the solid support method.

DEPR:
The composition of the probes can be designed to inhibit nuclease activity. The incorporation of modified phosphodiester linkages (e.g., methyl phosphorylthioate or methylphosphonates) in the labeled probe during chemical synthesis may be used to prevent cleavage at a selected site. Depending on the length of the probe, the composition of its 5' complementary region, and the position of the label, one can design a probe to preferentially favor the generation of short or long labeled probe fragments for use in the practice of the invention. Great flexibility in the modification of the probes of this invention is possible so long as a the probe/target sequence duplex offers an enzymatically cleavable region. Fore example, RNase H requires a 3-6 base pair RNA:DNA sequence.

DEPR:
Detection or verification of the labeled oligonucleotide fragments may be accomplished by a variety of methods and may be dependent on the source of the label or labels employed. One convenient embodiment of the invention is to subject the reaction products, including the cleaved label fragments to size analysis. Methods for determining the size of the labeled nucleic acid fragments are known in the art, and include, for example, gel electrophoresis, sedimentation in gradients, gel exclusion chromatography and homochromatography.

DEPR:
Reagents employed in the methods of the invention can be packaged into diagnostic kits. Diagnostic kits include the labeled oligonucleotides and the primers together or in separate containers. If the oligonucleotide is unlabeled, the specific labeling reagents may also be included in the kit. The kit may also contain other suitably packaged reagents and materials needed for amplification, for example, buffers, dNTPs, and/or polymerizing means, and for detection analysis, for example, enzymes and solid phase extractants, as well as instructions for conducting the assay.

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End of Result Set

☐ Generate Collection

L4: Entry 2 of 2 File: USPT Dec 29, 1998

DOCUMENT-IDENTIFIER: US 5853990 A
TITLE: Real time homogeneous nucleotide assay

DEPR:
Oligonucleotides are composed of reacted mononucleotides to make oligonucleotides in a manner such that the 5' phosphate of one mononucleotide pentose ring is attached to the 3' oxygen of its neighbor in one direction via a phosphodiester linkage, and is referred to as the "5' end" end of an oligonucleotide if its 5' phosphate is not linked to the 3' oxygen of a mononucleotide pentose ring and subsequently referred to as the "3' end" if its 3' oxygen is not linked to a 5' phosphate of a subsequent mononucleotide pentose ring. A nucleic acid sequence, even if internalized to a larger oligonucleotide, also may be said to have 5' and 3' ends. Two distinct, non-overlapping oligonucleotides annealed to two different regions of the same linear complementary nucleic acid sequence, so the 3' end of one oligonucleotide points toward the 5' end of the other, will be termed the "upstream" oligonucleotide and the latter the "downstream" oligonucleotide. In general, "downstream" refers to a position located in the 3' direction on a single stranded oligonucleotide, or in a double stranded oligonucleotide, refers to a position located in the 3' direction of the reference nucleotide strand.

DEPR:
In the present invention, a label is attached to the probe so that the cleaved monoribonucleotides or small ribo-oligonucleotides which are generated by the nuclease activity of the RNase H can be detected. Several strategies may be employed to distinguish the uncleaved labeled ribo- or chimeric oligonucleotide probes from the cleaved labeled probe fragments. This feature of the present invention allows identification of those nucleic acid containing samples or specimens which contain sequences complementary to the ribo- or chimeric oligonucleotide probe.

DEPR:
The oligonucleotide primers and labeled probes may be prepared by a number of methods. Methods for preparing oligonucleotides (deoxy-, ribo, and chimeric) of a specific sequence are known in the art, and include, for example, cloning and restriction of appropriate sequences, direct automated chemical syntheses and enzymatically. Such techniques include, for example, the phosphotriester method, the phosphodiester method, the diethylphosphoramidate method, and the solid support method.

DEPR:
The composition of the probes can be designed to inhibit nuclease activity. The incorporation of modified phosphodiester linkages (e.g., methyl phosphorylthioate or methylphosphonates) in the labeled probe during chemical synthesis may be used to prevent cleavage at a selected site. Depending on the length of the probe, the composition of its 5' complementary region, and the position of the label, one can design a probe to preferentially favor the generation of short or long labeled probe fragments for use in the practice of the invention. Great flexibility in the modification of the probes of this invention is possible so long as a 4-6 base pair RNA:DNA sequence is available as a substrate for RNase H.

DEPR:
Detection or verification of the labeled oligonucleotide fragments may be accomplished by a variety of methods and may be dependent on the source of the label or labels employed. One convenient embodiment of the invention is to subject the reaction products, including the cleaved label fragments to size analysis. Methods for determining the size of the labeled nucleic acid fragments are known in the art, and include, for example, gel electrophoresis, sedimentation in gradients, gel exclusion chromatography and homochromatography.

DEPR:
Reagents employed in the methods of the invention can be packaged into diagnostic kits. Diagnostic kits include the labeled oligonucleotides and the primers in separate containers. If the oligonucleotide is unlabeled, the specific labeling reagents may also be included in the kit. The kit may also contain other suitably packaged reagents and materials needed for amplification, for example, buffers, dNTPs, and/or polymerizing means, and for detection analysis, for example, enzymes and solid phase extractants, as well as instructions for conducting the assay.

Term	Documents
KIT$1	0
KIT.DWPI,EPAB,JPAB,USPT.	77142
KITA.DWPI,EPAB,JPAB,USPT.	13724
KITB.DWPI,EPAB,JPAB,USPT.	2
KITC.DWPI,EPAB,JPAB,USPT.	237
KITE.DWPI,EPAB,JPAB,USPT.	2440
KITG.DWPI,EPAB,JPAB,USPT.	13
KITH.DWPI,EPAB,JPAB,USPT.	32
KITI.DWPI,EPAB,JPAB,USPT.	8
KITK.DWPI,EPAB,JPAB,USPT.	2
(L7 AND KIT$1).USPT,JPAB,EPAB,DWPI.	4

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IBM Technical Disclosure Bulletins

Refine Search: `l7 and kit$1` Clear

Search History

Today's Date: 1/18/2002

DB Name	Query	Hit Count	Set Name
USPT,JPAB,EPAB,DWPI	l7 and kit$1	4	L8
USPT,JPAB,EPAB,DWPI	l6 and electrophore$	4	L7
USPT,JPAB,EPAB,DWPI	l5 and (label$1 near5 cleav$ near5 (immobiliz$ or captur$))	4	L6
USPT,JPAB,EPAB,DWPI	oligonucleotide$1 and (charge$1 near5 mass near5 ratio$2)	124	L5
USPT,JPAB,EPAB,DWPI	oligonucleotide$1 near5 mobili$ near5 label$1 near5 cleav$ near5 (immobiliz$ or captur$)	0	L4
USPT,JPAB,EPAB,DWPI	l2 and probe$1	0	L3
USPT,JPAB,EPAB,DWPI	l1 and (charge$1 near5 mass near5 ratio$1)	2	L2
USPT,JPAB,EPAB,DWPI	mobility modifier	25	L1

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Search Results - Record(s) 1 through 4 of 4 returned.

☐ 1. Document ID: US 6090606 A

L8: Entry 1 of 4 File: USPT Jul 18, 2000

US-PAT-NO: 6090606
DOCUMENT-IDENTIFIER: US 6090606 A

TITLE: Cleavage agents

DATE-ISSUED: July 18, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Kaiser; Michael W.	Madison	WI		
Lyamichev; Victor I.	Madison	WI		
Lyamicheva; Natasha	Madison	WI		

US-CL-CURRENT: 435/199; 435/320.1, 435/325, 536/23.7, 536/24.3

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw Desc | Image

☐ 2. Document ID: US 6090543 A

L8: Entry 2 of 4 File: USPT Jul 18, 2000

US-PAT-NO: 6090543
DOCUMENT-IDENTIFIER: US 6090543 A

TITLE: Cleavage of nucleic acids

Charge/mass ratio

DATE-ISSUED: July 18, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Prudent; James R.	Madison	WI		
Hall; Jeff G.	Madison	WI		
Lyamichev; Victor I.	Madison	WI		
Brow; Mary Ann D.	Madison	WI		
Dahlberg; James E.	Madison	WI		

US-CL-CURRENT: 435/6; 435/91.5, 435/91.53

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw Desc | Image

☐ 3. Document ID: US 5994069 A

L8: Entry 3 of 4 File: USPT Nov 30, 1999

US-PAT-NO: 5994069
DOCUMENT-IDENTIFIER: US 5994069 A

TITLE: Detection of nucleic acids by multiple sequential invasive cleavages

DATE-ISSUED: November 30, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Hall; Jeff G.	Madison	WI		
Lyamichev; Victor I.	Madison	WI		
Mast; Andrea L.	Madison	WI		
Brow; Mary Ann D.	Madison	WI		

US-CL-CURRENT: 435/6; 435/91.5, 435/91.53

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw Desc | Image

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☐ 4. Document ID: US 5985557 A

L8: Entry 4 of 4 File: USPT Nov 16, 1999

US-PAT-NO: 5985557
DOCUMENT-IDENTIFIER: US 5985557 A

TITLE: Invasive cleavage of nucleic acids

DATE-ISSUED: November 16, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Prudent; James R.	Madison	WI		
Hall; Jeff G.	Madison	WI		
Lyamichev; Victor I.	Madison	WI		
Brow; Mary Ann D.	Madison	WI		
Dahlberg; James E.	Madison	WI		

US-CL-CURRENT: 435/6; 536/23.1

Full | Title | Citation | Front | Review | Classification | Date | Reference | KWIC | Draw Desc | Image

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